

Original Publication

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# Interprofessional Health Care Education at Academic Medical Centers: Using a SWOT Analysis to Develop and Implement Programming

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## Abstract

**Introduction:** Health care is increasingly being provided by interprofessional teams. Academic medical centers (AMCs) need to offer educational experiences for trainees to work on these teams. Few resources exist to guide educational leaders in developing and implementing these experiences to meet the unique needs of their AMC. A commonly used planning tool is the strengths, weaknesses, opportunities, and threats (SWOT) analysis, which can help organizations identify issues and develop strategies that overcome barriers to program implementation. **Methods:** This workshop focuses on teaching participants to use a SWOT analysis to develop interprofessional learning activities. The workshop contains both a didactic component and an experiential component. The workshop was offered as a 60-minute webinar and a 120-minute in-person presentation. The additional hour during the in-person presentation was used for experiential learning activities. Eighty-four educators from a number of health professions attended the webinar, and approximately 50 medical educators attended the in-person presentation. **Results:** Participants reported satisfaction with the workshop and found its content met stated learning objectives. Participants believed they gained both the knowledge to develop a strategic plan to implement interprofessional educational programming and the ability to apply this knowledge at their AMC. Participants reported that their confidence in using strategic planning increased due to workshop participation. **Discussion:** This workshop represents a first step in helping educational leaders learn and use strategies to develop and implement interprofessional educational programming unique to their AMC. This programming is important for training future health care providers to work on interprofessional health care teams.

## Keywords

Interprofessional, Strategic Planning

## Appendices

- A. SWOT PowerPoint Presentation.ppt
- B. Agenda.doc
- C. Preparation Guide for Teaching the SWOT Analysis.doc
- D. Blank SWOT.doc
- E. Blank Action Plan.doc
- F. Evaluation Surveys.doc

*All appendices are peer reviewed as integral parts of the Original Publication.*

## Educational Objectives

By the end of this activity, learners will be able to:

1. Define interprofessional education and competencies.
2. Define and describe the strengths, weaknesses, opportunities, and threats (SWOT) analysis and its specific components.
3. Perform a SWOT analysis relative to interprofessional educational programming at their own academic medical center (AMC).
4. Develop a proposal for implementing interprofessional educational programming based on the SWOT analysis.
5. Create an action plan to implement the proposal for interprofessional initiatives at their own AMC.

## Introduction

Health care is increasingly delivered by interprofessional health care teams. Team members require training to provide profession-specific care (e.g., medicine) and to work as interprofessional teams. This latter training is needed to meet competencies in interprofessional teamwork and team-based practice,

such as interprofessional communication practices, values/ethics involved in interprofessional practice, and understanding roles and responsibilities for collaborative practice.<sup>1</sup> However, professional training models largely keep learners from different professions separated until they are fully trained.<sup>2</sup> This lack of early interaction is one of many factors that serve as barriers in the development of interprofessional health care teams.

It is therefore essential that educational leaders and faculty members develop and implement interprofessional learning opportunities at their academic medical centers (AMCs) and learn to use strategies to overcome implementation barriers. A number of interprofessional educational programs are described in the literature, including through the *MedEdPORTAL* Interprofessional Education Collection. However, it is difficult to replicate these programs at other sites for a number of reasons, including differences in AMC staffing, structure, culture, and expertise.

Thus, it is necessary to teach educational leaders and faculty members how to develop interprofessional education that meets the unique needs and training environment of their AMC. Strategic planning is commonly used in a number of settings to develop and implement new approaches. One such strategy that is widely used in organizations is the strengths, weaknesses, opportunities, and threats (SWOT) analysis.<sup>3</sup> The SWOT is used to analyze an organization's internal strengths and weaknesses, as well as the opportunities and threats in the external environment.<sup>3</sup> These SWOT factors are then used to develop actionable strategies to achieve the initial goal.

Educators are beginning to use the SWOT framework to develop and implement interprofessional educational programs.<sup>4</sup> The SWOT analysis is particularly salient for interprofessional education planning for a number of reasons. It allows educational leaders and faculty members to evaluate current interprofessional activities and to develop specific plans for future interprofessional programming. Furthermore, SWOT strategies help educational leaders to align AMC resources to achieve these plans and to identify strategies to overcome barriers that may impede program implementation.

Currently, there are few resources available for educational leaders and faculty members to gain the needed skill set to develop and use a SWOT analysis. We therefore designed an interactive workshop to teach educational leaders and faculty members about the SWOT components and how to apply this knowledge to develop strategies to implement interprofessional educational programming that is individualized to the unique environment at their AMC. To our knowledge, this is the first *MedEdPORTAL* publication for a workshop on a planning strategy that can be used to develop interprofessional educational programming unique to each AMC. We created the workshop to meet this identified gap in the literature.

## Methods

Presenters completed prerequisite work prior to the workshop. This work included personalizing specific PowerPoint slides (Appendix A), understanding the time line of workshop activities (Appendix B), understanding SWOT components, and developing SWOT strategies. Presenters also familiarized themselves with the PowerPoint slides and the accompanying presenter notes.

Presenters personalized several slides, including adding their names and affiliations on Slide 1, disclosures on Slide 2, and contact information on Slide 27. Presenter notes identified several slides that were animated as part of the presentation. An agenda (Appendix B) included the time lines for both the 60-minute and the 120-minute workshops. These time lines provided the time needed for each task, objectives for each segment of the workshop, and corresponding PowerPoint slides for each segment. Prior to the workshop, presenters decided who would present each component.

In addition, prior to the workshop, presenters gained knowledge of the components of the SWOT analysis and expertise in developing and implementing strategies related to the SWOT.

Specific prerequisite knowledge and skills for presenters included the following:

- Understanding the components of the SWOT analysis, including strengths (internal positive factors within an AMC's control), weaknesses (internal negative factors within an AMC's control), opportunities (external positive factors outside of an AMC's control), and threats (external negative factors outside of an AMC's control).
- Understanding how to develop SWOT strategies, including using strengths to take advantage of opportunities (opportunity-strength strategy), using opportunities to minimize weaknesses (opportunity-weakness strategy), using strengths to minimize threats (threat-strength strategy), and using threats and weaknesses to offset each other (threat-weakness strategy).
- Using the SWOT strategies to develop interprofessional educational programming at their own medical centers. As part of the presentation, presenters shared programs they had developed as examples for workshop participants.

Presenters gained this prerequisite knowledge by using resources available online and in the academic literature.<sup>5-10</sup> Furthermore, the preparation guide for teaching the SWOT analysis (Appendix C) provided additional explanation of the SWOT and examples developed by the presenters.

Two types of workshops were developed to present this material, a 60-minute workshop delivered via a webinar and a 120 minute in-person workshop. The 60-minute workshop was presented to two different audiences via webinars.

The first webinar occurred in 2017 as part of a VA Boston Healthcare System faculty development program, the First Friday Faculty Development Presentation Series.<sup>11</sup> This monthly series included a wide range of content areas crucial to educators, including providing feedback to learners, using spaced learning in education, and developing interprofessional learning environments. Faculty members from all health professions at all VA AMCs nationwide and at VA affiliate health professions training programs were invited to attend. Participants were informed about the workshop through several emails sent to LISTSERVs of educators affiliated with the VA. Faculty members primarily participated in the presentation via an online conferencing program. Five people served as presenters in the first webinar workshop.

The second workshop occurred in 2016 as part of the American Interprofessional Health Collaborative (AIHC) webinar series.<sup>12</sup> AIHC webinars covering a range of topics related to interprofessional education were held on a regular basis. AIHC members were informed about our workshop through emails sent to the AIHC membership. AIHC members participated in the presentations via an online conferencing program. In this second workshop, one person served as a presenter.

Both workshops presented the same materials. A computer and an online conferencing program were the necessary audiovisual equipment. PowerPoint slides, the blank SWOT (Appendix D), and the blank action plan (Appendix E) were emailed to workshop participants prior to the webinars.

At the start of the workshops, presenters introduced themselves, identified potential disclosures, and described the learning objectives (5 minutes; Slides 1-3). Presenters then defined interprofessional education and the core competencies for interprofessional collaborative practice (10 minutes; Slides 4-9). For the next 10 minutes, presenters identified barriers to implementing interprofessional education (Slide 10) and introduced the SWOT analysis as one method to overcome these barriers (Slides 11-12). A discussion of the SWOT components (Slides 13-16) followed. Presenters were encouraged to include examples from their own SWOT during this part of the workshop.

Workshop participants next spent 5 minutes working individually to identify strengths, weaknesses, opportunities, and threats at their own AMC. Slide 17 was displayed during this time. The goal of this short 5-minute exercise was for participants to begin to think about the SWOT and their AMC, not to complete a

full analysis. Presenters helped individual participants with this exercise, as needed. Presenters could also share components from the SWOT they had developed.

Presenters then discussed types of strategies developed from the SWOT analysis using the blank SWOT (15 minutes; Slides 18-23). Presenters could choose to include strategies developed and implemented at their own AMC during this discussion.

Finally, workshop participants were provided with specific steps for the creation of an action plan to develop and implement a SWOT analysis at their AMC (5 minutes; Slides 24-25). The last 10 minutes were reserved for presenters to summarize the session (Slide 26), solicit feedback from participants, and answer questions. Presenters' contact information was provided at the conclusion of the workshop (Slide 27).

For the first webinar, satisfaction surveys (Appendix F) were emailed to participants following the workshop. Participants were asked to respond to a range of questions, including the degree to which they agreed with statements about their satisfaction with the workshop, on a 5-point Likert scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*).

For the second webinar, participants were emailed a survey (Appendix F) following the workshop. Participants were asked to respond to a range of questions, including the degree to which they agreed with statements about the extent to which the workshop met its stated learning objectives. Participants were asked to rate their agreement on a 5-point Likert scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*).

This material was also presented as a 120-minute in-person workshop at Learn Serve Lead, the AAMC annual meeting, in 2015.<sup>13</sup> Participants were informed about the workshop through the meeting agenda available on the conference website and through the printed meeting agenda provided to conference attendees.

Four people served as presenters, although the workshop could likely be given by a minimum of two presenters. Required materials for the workshop included a computer with PowerPoint, a projector, a projection screen, a flip chart, markers, and copies of Appendices C and D for participants.

Learning objectives were the same as in the 60-minute workshop. The additional hour in the live presentation was used for participants to work both individually and in group settings at several time points during the workshop.

Individual work included 10 minutes for participants to identify strengths, weaknesses, opportunities, and threats at their AMC (Slide 17); 10 minutes for participants to develop SWOT strategies at their AMC (Slide 23; the phrase "After today's presentation" on the slide was taken out); and 5 minutes for participants to develop their own action plan (Slide 25).

A 15-minute small-group (three to five people) discussion was used for participants to share SWOT strategies they had developed during their individual work. Following small-group discussions, workshop presenters facilitated a 25-minute large-group discussion in which participants were encouraged to share strategies they had developed and discussed in their small groups. Strategies were recorded on the flip chart by a workshop presenter. These strategies were later typed up and sent via email to interested workshop participants following the workshop.

No formal evaluation method was used by the conference organizers for the 120-minute workshop. Presenters collected qualitative data as part of the presentation.

## Results

For the first webinar, 52 people attended, and 32 participants completed the survey (62% response rate). Participants earned continuing education (CE) credits for attending the workshop and completing the

survey. Of the 32 participants, 20 (63%) were nurses, three (9%) were physicians, and three (9%) were psychologists. The remaining participants included a dietitian, pharmacist, social worker, and other health care professionals who did not specify their profession.

Overall, 86% of responses to survey statements were either agree or strongly agree (4 or 5, respectively, on a 5-point Likert scale). Mean scores for these statements are reported below.

- “Overall, I was satisfied with this learning activity” ( $M = 4.0$ ).
- “I learned new knowledge and skills from this learning activity” ( $M = 3.9$ ).
- “I will be able to apply the knowledge and skills learned to improve my job performance” ( $M = 4.1$ ).
- “The scope of the learning activity was appropriate to my professional needs” ( $M = 4.1$ ).
- “The training environment was effective for my learning” ( $M = 4.0$ ).
- “I would recommend this training to others” ( $M = 4.0$ ).
- “The learning activities and/or materials were effective in helping me learn the content” ( $M = 4.0$ ).
- “The content was presented in a manner that was fair and unbiased” ( $M = 4.2$ ).

Participants were asked, “How much did you learn as a result of this CE program?” Using Likert-style responses (1 = *Very Little*, 5 = *Great Deal*), 22 (69%) answered that they had learned a great deal or fair amount.

Participants were asked, “How useful was the content of this CE program for your practice or other professional development?” Using Likert-style responses (1 = *Not Useful*, 5 = *Extremely Useful*), 25 (78%) answered that the content was useful or extremely useful.

Participants were asked the degree to which they agreed with five statements about the extent to which the workshop met its stated learning objectives. Overall, 91% of responses to these statements were either agree or strongly agree (4 or 5, respectively, on a 5-point Likert scale). Mean scores for these statements are reported below.

- “Define interprofessional education” ( $M = 4.3$ ).
- “Identify core competencies for interprofessional collaborative practice” ( $M = 4.1$ ).
- “Define SWOT analysis” ( $M = 4.3$ ).
- “Apply the SWOT to one’s own academic medical center” ( $M = 4.1$ ).
- “Identify the components of an action plan” ( $M = 4.3$ ).

For the second 60-minute webinar, 32 people participated, and nine participants completed the satisfaction survey (28% response rate). Participants were asked to identify their primary professional designation and reported the following: LP, PharmD/RPh, MPH, faculty development administrator, CO/CMT, ATC, PhD/MEd, MBA, and PhD.

Participants were asked the degree to which they agreed with five statements about the extent to which the workshop met its stated learning objectives. A 5-point Likert scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*) was used. Mean scores for these statements are reported below.

- “Define and describe how to use a SWOT analysis to develop and implement interprofessional faculty development programming” ( $M = 4.2$ ).
- “Understand how one large academic medical center applied the SWOT analysis to develop two successful, innovative interprofessional faculty development programs” ( $M = 4.2$ ).

Seven of eight (88%) participants either agreed or strongly agreed with the statement “Learning activities were effective.” Six of eight (75%) participants either agreed or strongly agreed with the statement “This

webinar met my expectations.” Finally, when asked, “Overall, how valuable do you anticipate this session being to your interprofessional practice and education work?” eight out of nine (89%) participants reported that the session was either valuable or very valuable.

Participants were asked to identify their confidence level before and after the workshop in regard to performing the tasks taught in the workshop. Participants were asked to identify their level of confidence to “use a SWOT analysis” and to “create an action plan” on a 3-point Likert scale (1 = *Not at All Confident*, 2 = *Somewhat Confident*, 3 = *Confident*). Mean scores for these statements are reported below.

- Prior to the workshop:
  - “Use a SWOT analysis to develop and implement interprofessional faculty development programming at my institution” ( $M = 2.2$ ).
  - “Create an action plan for interprofessional faculty development initiatives at my medical center” ( $M = 2.3$ ).
- Following the workshop:
  - “Use a SWOT analysis to develop and implement interprofessional faculty development programming at my institution” ( $M = 2.9$ ).
  - “Create an action plan for interprofessional faculty development initiatives at my medical center” ( $M = 2.9$ ).

These results suggest that participants in the 60-minute presentation were satisfied that the workshop met their learning needs, that they learned new knowledge and skills, and that they believed the workshop met its stated learning objectives. Furthermore, confidence to use the skills taught increased as a result of workshop participation.

Quantitative participant data were not formally collected from the 120-minute live workshop, although participant responses during the feedback portion of the workshop were collected and are reported below. Approximately 50 people participated in the live workshop. Participants were mainly in medical education leadership positions.

Workshop leaders collected qualitative data as part of the workshop to identify aspects of the presentation that went well and components that could be improved upon. Participants appeared to appreciate the SWOT examples discussed and the interprofessional nature of the presenters. Specifically, participants identified the following positive components of the workshop:

- “SWOT worked well.”
- “Interjections of the case program.” [Participant was referring to the examples of interprofessional programming implemented as a result of the SWOT analysis at the presenters’ AMC.]
- “Teamwork—IPE!” [Participant was referring to the interprofessional nature of the team of presenters.]

Participants identified several improvements future presenters could consider implementing, including increasing the number of examples discussed, increasing the depth of the discussions, and organizing participants by setting, experience level, and more. Specifically, participants suggested the following improvements:

- “Organize participants better—setting, educational level.”
- “Do the SWOT as a group rather than individually.”
- “More examples.”
- “Talk about leadership models.”
- “Open up cases to questions.”

At the end of the workshop, participants were asked to identify take-home messages. General themes included applying the SWOT approach to other areas of practice and engaging AMC leadership. Specific comments included the following:

- “Use SWOT for other applications.”
- “Extend curriculum to other professions.”
- “Engage family medicine student organization.”
- “Think of other sites for IPE.”
- “Go to the top of the institution to get leadership buy-in.”
- “Reframe current ideas and curricula to enhance IPE.”
- “Myth busting—more than superficial IPE.”

Workshop leaders recorded the SWOT strategies participants shared during the large-group discussion. These strategies largely focused on working with AMC leadership to prioritize interprofessional education (e.g., protect faculty and trainee time to participate), developing collaborations with faculty members from different health care professions at the affiliate sites, and incorporating interprofessional education during curriculum redesign meetings.

These SWOT strategies were emailed to participants approximately 1 month following the presentation, with the hope that these emails would remind participants to continue to use the SWOT analysis to develop and implement interprofessional educational programming at their AMC.

### Discussion

Interprofessional teams are rapidly being created to provide health care at AMCs. Developing interprofessional educational opportunities is essential for trainees to learn to practice on these teams. Although a number of interprofessional educational programs are described in the literature, it is difficult to replicate these programs due to differences in AMC staffing, structure, culture, and expertise. Therefore, faculty members at AMCs need to learn how to develop and implement interprofessional learning experiences that meet the specific needs of their AMC, faculty members, and trainees.

The purpose of this workshop is to help faculty members learn to use a planning strategy, the SWOT analysis, to develop interprofessional educational programming at their AMC. This workshop has been given three times, twice as a 60-minute webinar and once as a 120-minute in-person workshop.

The content of this workshop includes both didactic teaching and experiential learning opportunities to help participants begin to develop their own SWOT analyses. Participants reported satisfaction with the workshop and found that its content met stated learning objectives. Results indicated that participants believed they gained both the knowledge to implement interprofessional educational programming and the ability to apply this knowledge at their AMC. Participants reported confidence in their ability to use this knowledge and indicated that their confidence increased as a result of workshop participation.

Based on the feedback from participants, future workshops might group participants by type of educational program or familiarity with interprofessional education during the small-group discussions. For example, workshop participants with a great deal of experience with interprofessional programming could be grouped together. This might allow participants to connect with others who have shared experiences.

A few limitations are noted. Presenters need to spend time completing the SWOT analysis for their own AMC and feel comfortable teaching these concepts to workshop participants. Presenters may need to consult with administrators at their AMC who have previously completed SWOTs in order to gain more knowledge in this area. Furthermore, longitudinal data collection is needed to understand how workshop participation results in program implementation at the participants' AMCs. Data collection should also



include multiple levels from Kirkpatrick's evaluation model,<sup>14</sup> such as measuring specific knowledge learned and how participants apply it. The current workshops evaluated only participants' perceptions, which are Level 1. Future workshops should consider follow-up sessions with participants to better understand the long-term effectiveness of the workshop and to identify the barriers that participants experience in developing and implementing their SWOT analyses. Finally, the low response rate for the second webinar may have impacted the data collected. Future presentations should identify ways to ensure a high response rate for evaluation surveys, perhaps by having participants complete the surveys at the end of the presentation or by offering CE credits for completion.

This workshop represents a first step in helping educational leaders learn and use strategies to develop and implement interprofessional educational programming that is unique to their AMC. This programming is important for training future health care providers to work on interprofessional health care teams.

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#### Prior Presentations

Topor D, Dickey C, Stonestreet L, Wendt J, Woolley A, Budson A. Interprofessional education and faculty development at academic medical centers: identifying strengths, barriers, and opportunities. Workshop presented at: Learn Serve Lead, the AAMC Annual Meeting; November 2015; Baltimore, MD.

Topor D, Budson A. Developing and implementing interprofessional faculty development and programming at academic medical centers: identifying strengths, barriers, and opportunities. Presented at: American Interprofessional Health Collaborative National Webinar; December 2016.

Topor D, Dickey C, Stonestreet L, Wendt J, Woolley A, Budson A. Interprofessional education and faculty development: using strategic planning to develop and implement programming. Webinar presented at: National VA First Friday Faculty Development Presentation Series; August 2017; Boston, MA.

#### Ethical Approval

Reported as not applicable.

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